DOCUMENT RESUME

ED 321 575 FL 018 713

AUTHOR Gardner, R. C.; And Others
TITLE A Multidimensional Investigation of Acculturation and Language Proficiency. Research Bulletin #692.
INSTITUTION University of Western Ontario, London. Dept. of Psychology.
PUB DATE May 90
NOTE 39p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Acculturation; Age Differences; Ethnicity; Foreign Countries; *Immigrants; *Language Attitudes; *Language Proficiency; Language Role; *Polish; Second Language Learning; Self Esteem; *Stereotypes; Surveys; Uncommonly Taught Languages
IDENTIFIERS Canada; *Language Choice

ABSTRACT

This study investigated the multidimensional nature of language preference, language confidence, self-identity, and various attitudes and stereotypes among a sample of Polish immigrants to Canada. A total of 320 questionnaires were used in the study, 100 written in English and 220 in Polish; of this total, 248 were returned for a response rate of 78 percent. Language preference was defined in terms of the language of the questionnaire the respondents chose to answer. The study demonstrated differences in stereotypes about Canadians, Poles in Poland, and Polish immigrants to Canada that suggested these immigrants tended to perceive themselves as relatively Polish, but with many characteristics that make them distinctive from both Poles in Poland and from Canadians. Evidence also indicated that language preference was associated with ethnic identification, ethnic involvement, attitudes, and language confidence. However, language preference was not associated with stereotypes. Principal components analysis identified six orthogonal dimensions following a varimax rotation including: integrative acculturation, linguistic assimilation, stereotyping, Polish proficiency, age, and ethnic loyalty. Causal modeling analysis of those variables typically linked to ethnic identity supported a model in which ethnic identity is dependent upon language proficiency. The results are discussed in terms of their implications for research on both acculturation and second language acquisition of immigrants. (Author/MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED321575

A Multidimensional Investigation of Acculturation and Language Proficiency[1]

R. C. Gardner, E. Przedzielewski,
& L. M. Lysynchuk

University of Western Ontario

May, 1990 Research Bulletin #692

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R.C. Gardner

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

BEST COPY AVAILABLE

DEPARTMENT OF PSYCHOLOGY

THE UNIVERSITY OF WESTERN ONTARIO LONDON, CANADA

FL018713

Abstract

This study investigated the multidimensional nature of language preference, language confidence, self-identity and various attitudes and stereotypes among a sample of 248 Polish immigrants to Canada. Language preference was defined in terms of the language of the questionnaire that respondents chose to answer. The study demonstrated differences in stereotypes about Canadians, Poles in Poland and Polish Immigrants in Canada that suggested that they tend to perceive themselves as relatively Polish, but with many characteristics that make them distinctive from both Poles in Poland and Canadians. Evidence was also obtained indicating that language preference was associated with ethnic identification, ethnic involvement, attitudes, and language confidence but not stereotypes. A principal components analysis identified six orthogonal dimensions following a varimax rotation -- Integrative Acculturation, Linguistic Assimilation, Stereotyping, Polish Proficiency, Age, and Ethnic Loyalty. A causal modelling analysis of those variables typically linked to ethnic identity supported a model in which ethnic identity is dependent upon language proficiency. These results were discussed in terms of their implications for research on both acculturation and second language acquisition of immigrants.

A Multidimensional Investigation of Acculturation and Language Proficiency

The relationship between the development of second language proficiency and the maintenance of ethnic identity is one which has attracted a great deal of theoretical attention, but relatively little empirical work (Edwards & Chisholm, 1987). Some researchers (e.g., Giles & Byrne, 1982; Lambert, 1974; Schumann, 1978) propose that learning a second language is associated with an individual's sense of ethnic identity, while others (e.g., Berry, 1980; Olmedo, 1979; Padilla, 1980) have argued either that second language acquisition does not necessarily imply assimilation or that acculturation is a multi-dimensional phenomenon and that it doesn't necessarily involve loss of first language skills.

Aboud (1981) provides a clear and succinct definition of ethnic identity, suggesting that it consists of two components, ethnicity and self-identity. Self-identity is defined simply as the thoughts one has about oneself, while ethnicity is viewed as one's thoughts about one's own ethnic group. When one or more of the self attributes correspond with the attributes of ethnicity, an ethnic identity exists (Aboud, 1981). This type of formulation obviously has implications for research concerned with acculturation. That is, it seems possible that the acculturation process might have effects on some aspects of self-identity (specifically those linked to ethnicity) and not on others. Members of an immigrant group might be expected to show changes in some characteristics associated with ethnicity as a function of their

degree of contact with the host community, but not in others. More specifically, the extent to which an individual identifies with the host community relative to his/her ethnic community might well relate to some individual difference variables such as language skill and preference (cf. Olmedo, 1979) but not to others such as social attitudes and beliefs.

The association between language proficiency and acculturation has been the source of much theoretical discourse, though the reason for the association is often seen to differ. Schumann (1978) states, for example, that the degree to which a learner acculturates to the target language group will control the degree to which he/she acquires the second language: acculturation being defined as social and psychological integration of the learner with the target group. Giles and Byrne (1982) proposed an intergroup approach to second language acquisition that focuses on the acquisition of a second language by members of a linguistic minority group. They suggest that those who identify with their ethnic group and see their language as an important dimension of their ethnicity will be more reluctant to learn the dominant group's language than those who do not identify strongly with their own ethnic group.

Although a similar link between acculturation and language proficiency is made by Lambert (1974), the cause/effect sequence is reversed. Lambert (1974) suggested that once proficiency in a second language has developed to a high level, it will have an influence on self-identity, which in turn will result in either additive or subtractive bilingualism depending upon the nature of the cultural context. Additive bilingualism occurs when the acquisition of a second

language does not involve any loss in the first language, or any loss of ethnic identity. On the other hand, subtractive bilingualism often occurs when an individual learns a second language because of national policies or pressures to become part of a majority language community. In the process of learning the second language, the individual gradually loses his/her first language and may feel a loss of ethnic identity.

Edwards (1985) proposed that language is the most prominent symbol of ethnicity because it is the most salient, but it is not an essential component of ethnicity. In later research, Edwards and Chisholm (1987) argued that the language-identity link may not be essential for continuing identity. They found that the majority of their subjects believed that possession of the original group language was not very important in the continuity of group identity. This contrasts, to some extent, with Spolsky's (1969) finding that foreign students who perceived themselves as being more similar to English speakers obtained better grades in English than other foreign students. Interestingly, identification with one's own group was not found to be related to proficiency in English, suggesting that it is the affective reactions toward the other group rather than toward one's own community that is the pertinent variable.

Young and Gardner (1990) examined the relationship of ethnic identity to second language proficiency. One hundred twenty-four Hong Kong Chinese students were assessed on measures of ethnic identity, English achievement and self-perception in English and Chinese proficiency. Correlations showed that subjects who were proficient in English viewed themselves as Canadian, while those who were not skilled in English tended to identify with the Chinese community and to perceive

themselves as proficient in Chinese. Somewhat different findings were obtained by Pak, Dion, and Dion (1985) who examined the relationship between Chinese students' self-ratings of confidence with English, and ethnic identity. Factor analysis revealed that confidence with English was positively associated with using English, but that social distance toward anglophone groups and involvement in the Chinese community were not related to confidence with English.

One obvious explanation for the variety of research findings and somewhat inconsistent results is that the acculturation process is multi-dimensional and that various researchers have focused attention on different dimensions or stages of acculturation. Olmedo (1980) has argued similarly that acculturation is multi-faceted, and he has proposed the use of multiple measures and multivariate procedures to identify the dimensions underlying acculturation and possible causal sequences. He has suggested that advances may be made if greater attention is directed to the use of factor analysis, cluster analysis, canonical correlation and structural equation models in the investigation of acculturation.

In order to conduct such a multivariate investigation, it is important to tap as many behaviours and beliefs as possible that can relate to ethnic identity. Obvious variables include measures that ask individuals about their ethnic identity. Edwards and Chisholm (1987) have demonstrated that even with direct questions of ethnic identification, responses can be influenced by simply the wording of the item, thus, it would seem imperative to make use of multiple indices. Other variables relate to measures of involvement with the ethnic community. Olmedo (1979) has demonstrated that such indices help to

identify feelings of ethnic loyalty, a dimension that he believes is central to ethnic identification.

There are a host of demographic variables such as age, gender, length of stay in the majority culture, etc., that might contribute to perceptions of ethnic identity (cf. Olmedo, 1979). There are also many other variables reflecting social attitudes and stereotypes that could be associated with one's sense of ethnic identity. Attitudes toward the host community, toward other groups, and toward the self represent some potential influences on identification, while even stereotypes about the host community and the ethnic group itself could affect ethnic identification. Thus, for example, Boski (1985) asked a group of Polish immigrants to rate themselves, a prototypical Canadian, and a prototypical Pole in Poland, on 75 items describing behaviours, beliefs and values. Subjects were able to make such stereotypical judgments; moreover, the relations among these measures showed that Polish immigrants identified themselves with the prototypical Pole more than they did with the prototypical Canadian.

The purpose of the present study is to examine the possible link between second language acquisition and ethnic identity. Four major aspects of ethnic identity were considered. First, on the assumption that the preferred language is an index of ethnic identity, participants were given the opportunity to respond to a questionnaire in either Polish or English, and differences between these two groups were investigated. Second, the stereotypes of these immigrants about three major groups, with obvious potential relevance to them, were investigated. They were asked about Canadians, Poles in Poland, and Polish Immigrants in Canada. Third, a major factor analysis was

undertaken to investigate individual differences that might characterize Polish immigrants and to determine whether there were clear dimensions underlying these differences. Finally, a causal modeling analysis was performed in which the latent variables included were based in part on the interpretation of the factor analysis and in part on previous studies (e.g., Olmedo, 1980) and the causal paths formulated on the basis of prior research and theorizing as described above.

Method

Subjects

In order to obtain as representative a sample of Polish immigrants as possible, questionnaires were distributed in an Ontario city through churches, businesses and organizations that were frequented by Polish immigrants. There were 320 questionnaires used in the study, 100 written in English and 220 in Polish. Originally, 100 questionnaires were printed in each language, but due to demand for Polish language questionnaires, an additional 120 of them were printed and distributed. Of the 320 questionnaires that were distributed, 248, or 78% were returned. These were made up of 175 (79.5%) Polish questionnaires, and 73 (73.0%) English questionnaires.

Materials

The questionnaire was designed to obtain measures on a number of variables. These are described below and, where applicable, indices of Cronbach coefficient alpha reliability are indicated following the descriptions. There were four classes of Variables: (a) Measures of Ethnic Identity, (b) Indices of Ethnic Involvement, (c) Possible Correlates of Ethnicity, and (d) Indices of Language Proficiency. In

developing the questionnaire, items were originally written in English. The final English questionnaire was then translated into Polish by the second author of this article. Finally, the Polish questionnaire was translated back into English by a third party, and differences were resolved so that the Polish questionnaire reflected the meaning of the English one.

Measures of Ethnic Identity

Four measures were used that were intended to assess the extent to which the individual identified more with the Polish or the Canadian community. These measures were scored such that a high value indicates identification with the Canadian community. The measures were:

1. Self-Classification. Subjects were asked to choose the one alternative that they felt best described the way they typically thought of themselves. The alternatives were (1) Polish, (2) Polish Canadian, (3) Canadian with Polish background, and (4) Canadian. A fifth alternative indicating "Other" was provided, but responses were coded in terms of the most applicable of the four alternatives provided.
2. Ethnic Self-Rating. Subjects rated the concept "Myself" on 26 semantic differential scales, one of which was the bipolar scale Polish/Canadian. This one scale provided the ethnic self-rating and a subject's score varied from 1, indicating self identification as Polish, to 7, indicating identification as Canadian.
3. Identification Score. Subjects rated the concepts "Canadians" and "Poles in Poland" on 25 semantic differential scales common to those used for rating "Myself". An indirect measure of ethnic identification was obtained by computing Osgood's D score for the

respondents' perceptions of similarity between themselves and Canadians, and between themselves and Poles. The Osgood D score for Canadians and self was subtracted from that involving Poles in Poland and self, so that a high score was indicative of identification with Canadians.

4. Preferred Language. The participants were free to choose the language of the questionnaire. The choice of the Polish version was coded as 1, and that of the English version as 2.

Indices of Ethnic Involvement

Four measures were developed to assess the extent to which individuals attempted to maintain their involvement with their Polish roots. They were:

5. Practising Polish Traditions. Four items were presented that asked participants to rate the extent to which they felt that it was important to maintain Polish traditions while celebrating such occasions as Christmas, or whether such occasions should be celebrated according to Canadian customs. Three items were worded so as to emphasize Canadian customs, while the fourth stressed Polish customs. The items were scored, however, so that a high total score indicated that the individual believed in the importance of practising Polish traditions (Alpha = .62).
6. Interest in Polish Culture. Thirteen items that assessed the extent to which individuals involved themselves in various Polish activities, varying from attending Polish performances of visiting Polish entertainers to financially supporting Polish causes, were

presented. A high score indicated an active involvement in the culture, particularly that still focussed in Poland (Alpha = .54).

7. Polish Language Maintenance. Four items assessed the extent to which respondents agreed that Polish language training of children of Polish descent was important (Alpha = .90).

8. Polish Organizations. In order to obtain an index of individuals' active involvement with Polish organizations, subjects were asked to list (a) the Polish clubs and organizations to which they belong, and (b) the Polish newspapers which they read regularly. A subject's score was the total number of clubs, organizations and papers listed, the assumption being that the greater the number, the more the individual maintained contact with the Polish community.

Possible Correlates of Ethnicity

Ten measures were obtained to assess variables that have been hypothesized or found to relate to feelings of ethnic identity. In the descriptions to follow, the first three are based on demographic information, and the last seven involve measures developed or adapted for this investigation. The measures were:

9. Sex. The participants were asked to indicate their gender. Males were coded as 1, and females as 2.

10. Age. The respondents were asked to indicate their age.

11. Length of Time in Canada. The respondents were asked to indicate how long they had been in Canada. Their answers were rounded off to the nearest year.

12. Ethnolinguistic Vitality. This is defined as those qualities that make a group behave as a distinct collective entity in intergroup

relations. The measure of ethnolinguistic vitality was adapted from Bourhis, Giles and Rosenthal (1981). It consisted of a composite of items reflecting subjects' perceptions of the status, demography and institutional support for the Polish community in Canada (Alpha = .69).

13. Attitudes toward Canadians. This measure was adapted from Lalonde (1985) and consists of 10 statements of beliefs, opinions and perceptions about Canadians. Five were positive and five were negative. As scored, a high score reflects positive attitudes toward Canadians (Alpha = .83).

14. Attitudes toward Multiculturalism. There were 10 items adapted from Berry, Kalin and Taylor (1977) in this scale which refers to people's views of immigrants and the way they should behave. Five items were positively worded in that they reflected positive feelings toward a multicultural society in Canada, and five were negatively worded. A high score reflects a positive attitude toward multiculturalism (Alpha = .85).

15. Self-Evaluation. As indicated earlier, subjects rated the concept "Myself" on 26 bipolar semantic differential scales. Five of these scales were chosen to be highly evaluative based on the norms of Kirby and Gardner (1972), and the measure of self-evaluation consisted of the sum of ratings on these scales (Alpha = .58).

16-18. Stereotypes of the three groups, Canadians, Poles in Poland, and Polish Immigrants in Canada were assessed using the Stereotype Differential procedure. Using this procedure, twenty-five bipolar scales were presented for each concept on which subjects made their ratings. A stereotype analysis (see Results and Discussion

section) was conducted for each concept. The ten attributes identified as stereotypical for each of the three groups were used to compute an individual difference stereotyping score for each subject. The ten scales identifying each stereotype were reflected where necessary so that the higher the score, the more the subject agreed with the stereotype in question. The following three scores were thus obtained:

16. Stereotype of Canadians. (Alpha = .58).
17. Stereotype of Poles in Poland. (Alpha = .79)
18. Stereotype of Polish Immigrants in Canada. (Alpha = .78).

Language Proficiency

Since a questionnaire was the source of data in this study, it was not possible to obtain objective indices of language proficiency. Instead, items from Clark's (1981) Can-do scales were adapted to assess self-ratings of proficiency in both Polish and English reading and speaking skills. The Can-do procedure is a highly reliable and valid procedure (see Clark, 1981) in which subjects rate (on a seven-point scale in this study) how difficult or easy it is for them to perform specific language acts such as "Tell what I plan to be doing five years from now, using approriate future tenses." Using this procedure, four indices were obtained.

19. Self-rated Polish Reading Skills. Polish reading proficiency was measured by five items rating the ease with which the subject performs certain reading tasks in Polish (Alpha = .90).
20. Self-rated Polish Speaking Skills. This was assessed by five items on which subjects estimated how easy it was for them to perform certain oral tasks in Polish (Alpha = .86).

21. Self-rated English Reading Skills. This was assessed by five items referring to the ease with which the subject could read various types of English language material (Alpha = .94).
22. Self-rated English Speaking Skills. This measure was obtained using five items that described how easy it was for the participant to perform certain oral tasks in English (Alpha = .92).

Procedure

The participants were given a choice of questionnaires written in Polish or English and were asked to answer them on their own time. All the questionnaires were returned in sealed envelopes and without return addresses in order to ensure the participants' anonymity.

Results and Discussion

The present study has four major foci. The first deals with the stereotypes that the subjects have of Canadians, Poles in Poland, and Polish Immigrants in Canada. By focussing attention on stereotypes defined as consensual beliefs, it was felt that some light would be shed on the cognitions that Polish immigrants have of their social world. A second focus concerns the effect that ethnic identity, as reflected in the language in which the respondent chose to answer the questionnaire, has on reactions to the various measures. This was investigated by comparing the mean scores on the various measures for those answering the Polish questionnaire with those answering the English one. The

third focus considered the dimensionality underlying Polish immigrants' feelings of ethnic identity, as reflected in the factor structure underlying various social attitudes, beliefs, and behaviours. The final consideration involved testing a specific causal model linking some attitudes and behaviours to language proficiency, language preference and identity.

Consensual Stereotypes of the Groups

In order to determine the stereotypes about Canadians, Poles in Poland, and Polish Immigrants in Canada, Student's one sample t-statistic was used as suggested by Gardner, Wonnacott, and Taylor (1968). This statistic evaluates the extent to which mean ratings on a bipolar adjective scale depart in either direction from a neutral value. As such, it indicates whether the subjects tend to agree in localizing their rating of an ethnic group at one or the other end on a semantic differential scale. The attributes thus identified reflect the stereotype of the particular ethnic group. In the present study, the stereotype of each group was defined in terms of those 10 scales with the largest absolute t-value, assuming that these t-values were significant. These values were rank ordered from the largest to the smallest, so that the attributes with the largest absolute values were the ones that were most clearly associated with the group in question.

The stereotypes for the concepts "Canadians", "Poles in Poland", and "Polish Immigrants in Canada" are presented in Table 1. As can be

---

Insert Table 1 about here

---

seen in the table, Canadians have been rated very favourably. The only possibly negative attribute used to describe them is "materialistic", and it is not clear whether this is necessarily negatively evaluative. Other attributes included in the stereotype about Canadians are clearly positive (e.g., friendly, polite, sociable, and honest). Since these individuals have chosen to make Canada their home, it is perhaps reasonable to expect this picture to be so positive.

The stereotype held about Poles in Poland suggests that they are seen as people who concern themselves with such higher-level things in life as religion, political ideology, and social development. They are described with such adjectives as religious, patriotic, friendly, sociable, cultured, romantic, and musical. This stereotype contrasts somewhat with the stereotype about Polish Immigrants in Canada. That is, once these people come to Canada, they seem to change. While they are still seen as religious and cultured, Polish immigrants in Canada are also characterized as industrious, energetic, practical, and dependable. The pattern suggests that these individuals tend to perceive Polish immigrants as somewhat different from "Poles in Poland", as though reflecting changes influenced by the new social environment which they encounter after coming to Canada. Four of the attributes ascribed to Polish immigrants are also associated with Poles in Poland, suggesting an overlapping but still very different characterization. This difference, however, is not attributable to Canadianization. Only one attribute is common in the stereotypes of Polish immigrants and Canadians and that is "polite". These data suggest then that the consensual view of this sample is that Polish immigrants to Canada tend

to have many unique attributes that are not associated with either their original heritage or their host culture.

The attributes ascribed to Poles in Poland and to Canadians agree in general with what Boski (1985) found to be the prototypical Pole and the prototypical Canadian as rated by Polish immigrants in Canada. He found Canadians to be thought of as business-like, materialistic, "not concerned with patriotic issues" and as having "no taste for culture and intellectual lifestyle". Poles were thought of as family oriented, caring about their country, and as having "hedonic preferences for eating and drinking".

It should be emphasized that essentially the same stereotypes were obtained in the Polish version of the questionnaire as were in the English one. Separate t-tests that were run for the Polish and English questionnaires show that 8 to 9 out of the 10 attributes attributed to each concept in the Polish version were also attributed to it in the English version. This similarity suggests that the language of the questionnaire did not appreciably influence the answers (see also Table 2).

The Role of Language Choice in Ethnic Identity

In order to investigate more directly the role played by language of the questionnaire in the results obtained, a series of t-tests were run to determine whether there were any significant differences between those participants who chose the Polish version of the questionnaire and those who chose the English version. The t-values and their significance are presented in Table 2. The t-tests show a significant

---

Insert Table 2 about here

---

difference between the two groups of immigrants on 15 out of the 20 variables.

Inspection of Table 2 indicates that those answering the English version of the questionnaire tend to identify themselves as Canadians more so than those preferring the Polish questionnaire. This shows up on all three direct measures of ethnic identity, viz., self-classification, ethnic self-rating, and the ethnic identification score. In addition, those who preferred the English form of the questionnaire placed more emphasis on practising Polish traditions, were more interested in Polish culture, and were much more concerned with maintaining the Polish language among children. Such results suggest that having tended to adopt a Canadian identity and a Canadian language, such individuals feel compelled to retain elements of their Polish heritage. That they interact less with Polish organizations (Variable 8) indicates perhaps that they are nonetheless moving away from their Polish origins.

There were also interesting patterns involving the possible correlates of ethnic identity. Those answering the English questionnaire had lived in Canada longer, had more favourable attitudes toward Canadians and toward Multiculturalism, but rated themselves somewhat less positively on evaluative scales. Finally, in terms of language proficiency, the English respondents rated themselves as less proficient in Polish reading and speaking but more proficient in English reading and speaking. Although language of questionnaire cannot be ruled out as a possible reason for these differences, a more parsimonious one is that these differences reflect different reactions

to those who have chosen to emphasize the language of the host community as opposed to that of the heritage ethnic group.

Dimensionality Underlying Ethnic Identity

In order to identify the actual dimensionality of ethnic identity, a principal components analysis was conducted of the relationships among the 22 variables listed in the method section. Six factors were extracted, accounting for 64.1% of the total variance, and these were rotated by means of the Varimax procedure. The rotated matrix is presented in Table 3. Examination of the resulting dimensions helps to

---

Insert Table 3 about here

---

clarify aspects of the concept of ethnic identity, and shows links between different aspects of ethnic identity, acculturation, and second language proficiency.

Factor I obtains high loadings (greater than ± .30) from eight variables. The pattern of the loadings suggests that individuals who answered the English questionnaire perceived themselves more similarly on various traits to Canadians than Poles, rated themselves a Canadian, put more emphasis on practising Polish Traditions and on promoting Polish language training of their children. These individuals also expressed favourable attitudes toward multiculturalism and Canadians, and tended to adopt the stereotype about Canadians (which as already shown is quite positive). To some extent, this dimension is comparable to the factor of Acculturative Balance discussed by Olmedo (1979), however, in terms of Berry's (1980) model of acculturation, it seems better defined as an integrative form of acculturation. Individuals

appear to be expressing a positive attraction for both cultural communities. It seems more descriptive therefore to identify this as a dimension of Integrative Acculturation. This definition stresses its double- barrelled nature: identification both perceptually and linguistically with the dominant society, but with a clear interest in maintaining elements of the Polish culture. Such respondents appear to like their new culture and strongly favour a multicultural orientation in Canadian life (cf., Lambert, Mermigis & Taylor, 1986).

Factor II is defined by five variables and appears to define a dimension of Conscious English Identification or possibly Linguistic Assimilation (cf., Pak, Dion & Dion, 1985). Subjects who identified themselves as Canadian, tended also to rate themselves toward the Canadian end of the Polish-Canadian self rating scale, and had spent a long period of time in Canada. These individuals also rated their English reading and speaking skills highly. This pattern thus demonstrates an association between conscious identification as Canadian with self perceived proficiency in English and long time residence in Canada. Since this factor is not defined by any of the variables denoting interest or involvement with the Polish community, it appears to reflect individual differences in what Berry (1980; 1984) would term an acculturation mode of Assimilation. Such an orientation is clearly associated with English language competence, at least as self-perceived, and is very comparable to a Linguistic Assimilation factor obtained by Pak, Dion & Dion (1985) in a sample of Chinese university students in Canada.

Factor III appears to reflect a Stereotyping dimension since three of the six variables defining it involve the extent to which individuals

stereotype Poles in Canada, Poles in Poland, and Canadians. These stereotypes are generally positively evaluative, so that what should be emphasized here is the consensual nature of the stereotypes, not any particular negative attitudinal component. The other three variables defining this dimension reflect a tendency to identify with the Polish community. Since there were more questionnaires answered in Polish than English, and since the stereotypes were defined in terms of the total sample, it could be possible that this link between Polish Identification and Stereotyping is due to the greater number of individuals identifying with the Polish community contributing to the stereotypes. Since there was considerable overlap in the stereotypes for each language grouping and the total sample, this effect is probably minimal, however. The main point is that the results suggest that stereotyping generalizes over a number of groups, and in the present sample at least such stereotyping about groups relevant to the Polish immigrant community characterizes those individuals who identify themselves with the Polish community.

Factor IV describes a perceived Polish Proficiency dimension in that the two predominant loadings are obtained by the self-rating measures of Reading and Speaking Polish. Interestingly, the only other variable loading on this factor is Attitudes toward Canadians, suggesting that those who perceive themselves to be proficient in Polish tend to hold negative attitudes toward Canadians. Such a configuration is consistent with Berry's (1980) concept of Rejection, if the configuration is viewed as reflecting a desire to maintain Polish identity and a relative dislike of Canadians. None of the other variables contribute to any great extent to this dimension.

Factor V seems to best reflect the correlates of age in these data and thus is defined as an Age dimension. Five variables defined the factor but the major two are Age and Length of Time in Canada, which would obviously covary. The other variables contributing to this factor suggest that the older respondents tend to be male, to maintain a large number of Polish contacts, and to retain their interest in the Polish culture. None of the other variables contribute to this Polish dimension, and the pattern is thus best seen as reflecting Age correlates in this particular data set.

Factor VI is defined by six variables. Subjects who maintain many interests in Polish cultural activities perceive high levels of Polish ethnolinguistic vitality in their community, evaluate themselves positively, but hold slightly negative attitudes toward Canadians, tend to be female and to identify themselves as Canadian. To some extent, this factor is similar to the Ethnic Loyalty dimension that Olmedo (1979) observed in a number of studies. In this study, however, it tends to be sex-linked in that it is more characteristic of the female respondents, and to involve classification of oneself as Canadian. The configuration is also interesting in that, unlike Factor I which reflected a positive link between cultural involvement and attitudes, this dimension suggests that an active concern with the Polish community relates negatively to attitudes toward the Canadian community, while still involving an identification with Canada.

A Causal Model of the Development of Ethnic Identity

The factor analytic solution demonstrates clear associations among the various measures of identification, attitudes and stereotypes, language proficiency and cultural beliefs. A meaningful question,

however, is whether or not it is possible to demonstrate any cause-effect links in this type of data. Olmedo (1980) has proposed a number of ways of considering data to test hypotheses about causal relations, and one that seems particularly appropriate in the present context is that of linear structural relations (LISREL). Based on the results of the factor analysis in the present study and factor structures proposed by Olmedo (1980), it seems meaningful to hypothesize nine latent variables appropriate to these data that could be linked to ethnic identity and acculturation. Of these, three can be seen as exogenous, Age, Sex, and Time in Canada. Six endogenous variables would be Ethnic Identification, Language Preference, Ethnic Loyalty, Traditional Values, Self-Perceptions of English skill and Self-Perceptions of Polish Skill. This representation uses 16 of the variables studied in the factor analysis. The various indicators of stereotyping, attitudes toward Canadians, attitudes toward multiculturalism and evaluation of the self do not fit meaningfully into a causal analysis of ethnic identification, though, as indicated in the preceding factor analysis, they are obvious correlates.

The three exogenous variables, Age, Sex and Time in Canada, were each assessed by the corresponding single indicators. The endogenous variables included three indexing beliefs and perceptions: Ethnic loyalty (defined in terms of the Interest in Polish Culture, the number of Polish Organizations to which the respondent belonged, and the perceived ethnolinguistic vitality of the Polish community), Traditional Values (indicated by Practising Polish Traditions, and Polish Language Maintenance), and Identification (measured by three indices of Ethnic Identification (Self-classification, Ethnic self-rating and the

identification score). Ethnic Identification was scored such that a high score reflects identification of the self as Canadian. The three remaining endogenous variables were assessments of language proficiency and preference. They were English proficiency (self ratings of reading and speaking skills), Polish proficiency (self-ratings of reading and speaking skills) and Language Preference (Language of the Questionnaire chosen).

The three exogenous variables are proposed in the literature (Olmedo, 1980) to be determinants of acculturation and language proficiency among immigrants. Obviously, Length of Time in Canada and Age would be expected to correlate positively, though they would have differing effects on some endogenous variables. There is no a priori reason to expect Sex to correlate with either of the other two exogenous variables, but in the data there was a clear correlation between Sex and each of these variables so this was incorporated in the model.

As indicated in the introduction, there are basically two different interpretations of the relation of ethnic identity to second language proficiency. One is that the willingness to identify with the other language community promotes second language proficiency (cf., Giles & Byrne, 1982; Schumann, 1978), and the other is that in developing second language proficiency, individuals tend to experience changes in their ethnic identity (Lambert, 1974). Both models were tested with the data obtained in the present study, but the former model resulted in some coefficients that were not meaningful (e.g., some path coefficients exceeded 1.0). Thus the model which was supported and is presented below favours the latter interpretation though in the context of acculturation by immigrants, it becomes somewhat more complex.

Insert Figure 1 about here

The completely standardized solution for a LISREL7 (Jöreskog & Sörbom, 1989) analysis of the correlations involving these variables is presented in Figure 1.[2] Considering both the measurement model and the structural model, there is considerable evidence that this model is a reasonable fit to the data. The obtained chi-square for the fit of the model was 275.50 at 94 degrees of freedom, and although this is significant indicating that the model did not account for all the correlations obtained, the chi-square/ degree of freedom ratio was only 2.93, well below the value of 5.0 that Wheaton, Muthen, Alwin and Summers (1977) consider as an upper bound index of fit. Moreover, the goodness of fit index was .91, and the adjusted goodness of fit index was .86, both indices of a reasonable fit. Finally, the root mean square residual was only .07.

A consideration of the measurement model indicates that in general the indicator variables adequately reflect the latent variables. In all cases, the factor loadings are significant. The one variable that has a particularly low loading is the Identification Score on the latent variable of Identification. This value obviously reflects the complexity of this measurement (a difference between two Osgood D-scores), and the fact that it contributes positively to this dimension indicates that nonetheless the index does reflect one's relative identification to the two groups.

As can be seen, the model is somewhat complex, but leads to the general conclusion that language proficiency promotes feelings of ethnic

identity. In the model, it will be noted that Age and Time in Canada have very real effects on subsequent variables and that their effects are very different. Increased age is associated with self perceptions of relatively poor English skills and relatively strong Polish skills, while just the opposite is seen for Time in Canada. Moreover, Time in Canada also has the effect of strengthening individuals' ethnic loyalty, yet promoting one's identification as Canadian. There are no other direct effects for any of the exogenous variables other than their complete intercorrelation with each other. These correlations indicate as expected that Age and Time in Canada are positively correlated, and within this sample at least that women tend to be younger and to have been residents of Canada for less time.

In the model it will be noted furthermore that self perceptions of English proficiency are seen to result in a tendency to promote Traditional Values, an inclination to identify oneself as Canadian, and a preference for using English. Self-perceptions of proficiency in Polish, on the other hand, lead to a preference for using Polish, and a perception of English proficiency. A preference for using English, furthermore, leads to a desire to promote Traditional Values, and the tendency to identify oneself as Canadian. Thus, although there are some additional and important pathways from the point of view of acculturation research, a major characterization of the acculturation process is that proficiency in the target language along with increased residence in the community tends to lead to identification with the Canadian community. Clearly, this supports Lambert's (1974) characterization of subtractive bilingualism.

General Discussion

The results of this study have important implications for research on acculturation and second language learning. They demonstrate very clearly that when immigrants develop a preference for using the host language, generally some time after being in the country, they display a number of attitudes and views that are different from those who have not adopted the host language. They identify themselves more with the host community, they feel more confident with that language but not the ancestral one, and they express more favourable attitudes toward the host country and multiculturalism. At the same time, these individuals are, however, somewhat critical of themselves, and concerned about maintaining their ethnic ties. Ethnic stereotyping did not differentiate between those who preferred one language over the other, but the nature of the stereotypes suggested that the majority of the subjects perceived Polish immigrants to be somewhat distinct from both Poles in Poland and Canadians.

The results also demonstrate the multidimensional nature of acculturation and ethnic identity. Clearly there are different reactions to acculturation. In this study, evidence was obtained supporting Olmedo's (1980) dimensions of Acculturative Balance and Ethnic Loyalty, and Schumann's (1978) notion of Linguistic Assimilation (see also Pak, Dion & Dion, 1985). Other dimensions such as Age, Polish Proficiency and Stereotyping were somewhat unique to the present data set and reflected covariation based on the nature of the sample and/or measurement techniques. Even the measurement of ethnic identity was found to be multi-faceted, having different influences depending on how it was assessed (cf. Edwards & Chisholm, 1987). The four indices of

ethnic identity showed a reasonable degree of correlation with each other, but at least one of them was represented on four of the six factors obtained. Two of the measures contributed to three factors, one contributed to two factors, and only one, Language Preference, was represented on only one factor.

The causal modelling analysis helped to further clarify the multidimensional nature of ethnic identification, and suggest a definite causal link between language development and ethnic identity. It seems very clear that ethnic identity develops after linguistic assimilation. It is after self-confidence with the new language and a definite preference for using it has occurred that one begins to identify with the host community, and this is predicated on long-term experience with the new culture. Ethnic loyalty and concern with traditional values have no direct effect on ethnic identification. Clearly the generality of this model should be tested in other contexts, but the links obtained here strongly support the conclusion that linguistic competence has causal effects on ethnic identity. Obviously, both develop in unison. It would not be meaningful to assume that feelings of ethnic identification with the host community do not begin to develop until after linguistic competence is achieved, but it is clear that overall proficiency in the second language leads to identification with the host community as suggested by Lambert's (1974) concept of subtractive bilingualism. The alternative view that ethnic identification precedes linguistic assimilation is not supported.

Footnotes

1. This research was supported by a research grant from the Social Sciences and Humanities Research Council of Canada awarded to the senior author for research on the topic "Social Factors in Second Language Learning and Ethnic Relations". We would like to express our appreciation to all the people who graciously gave their time to answer the questionnaire, and to V. Galbraith for her assistance in various phases of the research.

2. One correlation for measurement error involving self-ratings of English reading and self-ratings of Polish reading was also estimated. Its value was .10. It seemed meaningful to permit this estimate in the model since the two indicator variables involved the same measurement procedures.

References

Aboud, F. E. (1981). Ethnic self-identity. In R. C. Gardner & R. Kalin (eds.), A Canadian social psychology of ethnic relations (pp. 37-56). Toronto: Methuen.

Berry, J. W. (1980). Acculturation as varieties of adaptation. In A. M. Padilla (ed.), Acculturation: Theory, models and some new findings. Boulder, Co.: Westerview Press.

Berry, J. W. (1984). Multicultural policy in Canada: A social psychological analysis. Canadian Journal of Behavioural Science, 16, 353-370.

Berry, J. W., Kalin, R., & Taylor, D. (1977). Multiculturalism and ethnic attitudes in Canada. Ottawa: Supply and Services.

Boski, P. (1985). On becoming a Canadian or remaining a Pole: stability and change in ethnic self-identity among Polish immigrants in Canada. Unpublished manuscript, Queen's University.

Bourhis, R., Giles, H., & Rosenthal, D. (1981). Notes on the construction of a sybjective vitality questionnaire for ethnolinguistic groups. Journal of Multilingual and Multicultural Development, 2, 145-155.

Clark, J. L. D. (1981). Language. In T. S. Barrows (Ed.), A survey of global understanding: Final Report (pp. 87-100). New Rochelle, N.Y.: Change Magazine Press.

Edwards, J. (1985). Language, society and identity. Oxford, Basil Blackwell.

Edwards, M., & Chisholm, J. (1987). Language, multiculturalism and identity: a Canadian study. Journal of Multilingual and Multicultural Development, 8, 391-408.

Gardner, R. C., Wonnacott, E. S., & Taylor, D. M. (1968). Ethnic stereotypes: A factor analytic investigation. Canadian Journal of Psychology, 22, 35-44.

Giles, H., & Byrne, J. L. (1982). An intergroup approach to second language acquisition. Journal of Multilingual and Multicultural Development, 1, 17-40.

Jöreskog, K. G., & Sörbom, D. (1989). LISREL 7: Users Reference Guide. Mooresville, Indiana: Scientific Software, Inc.

Kirby, D. M., & Gardner, R. C. (1972). Ethnic stereotypes: Norms on 208 words typically used in their assessment. Canadian Journal of Psychology, 26, 140-154.

Lalonde, R. N. (1985). Ethnic stereotype processing and organization as a function of group membership. Unpublished doctoral dissertation, University of Western Ontario.

Lambert, W. E. (1974). Culture and language as factors in learning and education. In F. E. Aboud & R. D. Meade (eds.), Cultural factors in learning and education. Bellingham, Washington: Fifth Washington Symposium on Learning.

Lambert, W. E., Mermigis, L., & Taylor, D. M. (1986). Greek Canadians' attitudes toward own group and other Canadian ethnic groups: A test of the multiculturalism hypothesis. Canadian Journal of Behavioural Science, 18, 35-51.

Olmedo, E. L. (1979). Acculturation: A psychometric perspective. American Psychologist, 34, 1061-1070.

Olmedo, E. L. (1980). Quantitative models of acculturation: An overview. In A. M. Padilla (ed.) Acculturation: Theory, models and some new findings. Boulder, Co.: Westerview Press.

Padilla, A. M. (1980). The role of cultural awareness and ethnic loyalty in acculturation. In A. M. Padilla (ed.) Acculturation: Theory, models and some new findings. Boulder, Co.: Westerview Press.

Pak, A., Dion, K. L., & Dion, K. K. (1985). Correlates of self-confidence with English among Chinese students in Toronto. Canadian Journal of Behavioural Science, 17, 369-378.

Schumann, J. H. (1978). Social psychological factors in second language acquisition. In J. C. Richards (ed.), Understanding second and foreign language learning. Rowley, Mass.: Newbury House.

Spolsky, B. (1969). Attitudinal aspects of second language learning. Language Learning, 19, 271-283.

Young, M. Y., & Gardner, R. C. (1990). Modes of acculturation and second language proficiency. Canadian Journal of Behavioural Science 22, 59-71.

Table 1

The Ten Attributes Most Closely Associated with the Three Groups

	Canadians	Poles in Poland	Polish Immigrants in Canada
1.	Materialistic	Religious	Industrious
2.	Friendly	Patriotic	Religious
3.	Polite	Sociable	Ambitious
4.	Sociable	Cultured	Energetic
5.	Honest	Friendly	Cultured
6.	Peaceloving	Ambitious	Practical
7.	Businesslike	Emotional	Moral
8.	Humourous	Romantic	Dependable
9.	Talkative	Talkative	Emotional
10.	Patient	Musical	Polite

Table 2

t-values for the Polish and English versions of the Questionnaire

	Variable	Polish mean	English mean	t-value
1.	Self-Classification	1.68	1.99	-2.64**
2.	Ethnic Self-rating	2.06	3.06	-3.73**
3.	Identification Score	-0.37	0.08	-3.71**
5.	Practising Polish Traditions	13.41	18.09	-9.84**
6.	Interest in Polish Culture	38.38	42.22	-2.78**
7.	Polish Language Maintenance	7.64	20.56	-18.72**
8.	Polish Organizations	2.21	1.64	2.02*
10.	Age	43.66	40.33	1.51
11.	Length of Time in Canada	13.20	18.46	-2.81**
12.	Ethnolinguistic Vitality	49.96	48.05	1.53
13.	Attitudes toward Canadians	37.82	45.51	-6.13**
14.	Attitudes toward Multiculturalism	25.87	46.62	-15.08**
15.	Self-Evaluation	30.50	29.07	2.09*
16.	Stereotype of Canadians	50.53	53.01	-1.91
17.	Stereotype of Poles in Poland	55.19	57.15	-1.35
18.	Stereotype of Poles in Canada	52.61	53.69	-0.74
19.	Polish Reading Skills	31.41	28.83	2.55*
20.	Polish Speaking Skills	31.78	28.88	3.39**
21.	English Reading Skills	22.40	28.76	-6.70**
22.	English Speaking Skills	23.60	28.46	-5.38**

* $p < .05$
** $p < .01$

Table 3

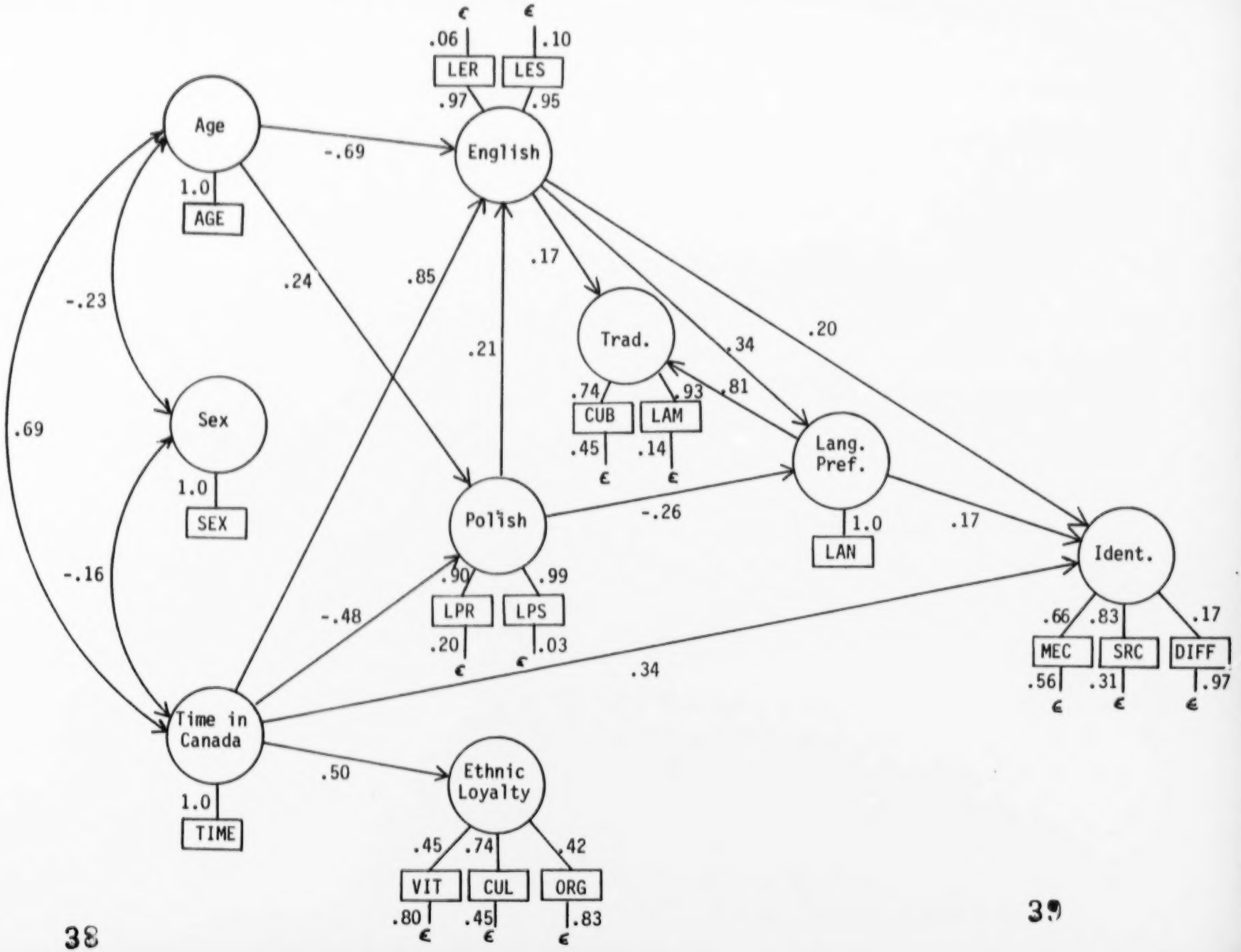
Rotated Factor Matrix of Relations Among Identification, Involvement, Demographic, Attitudinal and Language Proficiency Measures

		I	II	III	IV	V	VI
1.	Self-Classification (High = Canadian)	.17	.31	-.39	-.11	.21	.41
2.	Ethnic Self-Rating (Polish (1) - Canadian (7)	.31	.45	-.31	-.15	.21	.10
3.	Identification Score (High = Canadian)	.44	-.22	-.45	.02	.16	-.12
4.	Preferred Language (1 = Polish, 2 = English)	.86	.15	.06	-.16	-.03	-.05
5.	Practising Polish Traditions	.75	.26	.03	-.02	-.10	.11
6.	Interest in Polish Culture	.18	.09	.01	-.04	.34	.58
7.	Polish Language Maintenance	.86	.22	.04	-.08	.00	.00
8.	Polish Organizations	-.17	-.08	.21	.12	.53	.17
9.	Sex (1 = Male, 2 = Female)	.07	.11	.06	.04	-.49	.42
10.	Age	-.07	-.09	.02	-.05	.87	.07
11.	Length of Time in Canada	.13	.32	.02	-.28	.75	.22
12.	Ethnolinguistic Vitality	-.10	.17	.28	-.17	.04	.60
13.	Attitudes toward Canadians	.44	.19	.22	-.33	-.09	-.38
14.	Attitudes toward Multiculturalism	.86	.07	-.05	-.03	-.07	.01
15.	Self-Evaluation	-.10	-.17	.27	.02	.01	.60
16.	Stereotype of Canadians	.30	-.13	.53	.17	.16	.19
17.	Stereotype of Poles in Poland	.02	.07	.81	-.02	.07	.05
18.	Stereotype of Poles in Canada	.04	.02	.82	.02	.09	.21
19.	Self-rated Polish Reading Skills	-.08	.01	.11	.94	-.07	-.05
20.	Self-rated Polish Speaking Skills	-.14	.07	.01	.92	-.07	-.08
21.	Self-rated English Reading Skills	.26	.88	.07	.07	.00	-.02
22.	Self-rated English Speaking Skills	.19	.91	.06	.05	.00	-.02

Figure 1. A LISREL Causal Model of the Development of Ethnic Identity

Legend

Latent Variables	Indicator Variables
Age	Age
Sex	Sex
Time in Canada	Time - Length of Time in Canada
English (Proficiency)	LER -- Self-rated English Reading Skills LES -- Self-rated English Speaking Skills
Polish (Proficiency)	LPR -- Self-rated Polish Reading Skills LPS -- Self-rated Polish Speaking Skills
Ethnic Loyalty	VIT -- Ethnolinguistic Vitality CUL -- Interest in Polish Culture ORG -- Polish Organizations
Traditional Values (TRAD)	CUB -- Practising Polish Traditions LAM -- Polish Language Maintenance
Lang Pref. (Language Preference)	LAN -- Preferred Language
Ident. (Identification)	MEC -- Self-Classification SRC -- Ethnic Self-Rating DIFF -- Identification Score


Age
Sex
Time in Canada
English
Polish
Trad.
Lang. Pref.
Ident.
Ethnic Loyalty
AGE
SEX
TIME
LER
LES
LPR
LPS
CUB
LAM
LAN
MEC
SRC
DIFF
VIT
CUL
ORG
-.69
-.23
.69
-.16
.24
.85
.21
.17
.34
.20
.81
-.26
.17
-.48
.34
.50
.06
.10
.97
.95
.90
.99
.20
.03
.74
.93
.45
.14
.66
.83
.17
.56
.31
.97
.45
.74
.42
.80
.45
.83
1.0
ε